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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,501	12/19/2001	Joseph S. Wycech	M 6385A	9344

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HENKEL CORPORATION  
THE TRIAD, SUITE 200  
2200 RENAISSANCE BLVD.  
GULPH MILLS, PA 19406

EXAMINER
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VO, HAI

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/026,501

Applicant(s)

WYCECH, JOSEPH S.

Examiner

Hai Vo

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18,30-36 and 52-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 30-34 is/are allowed.
- 6) ☒ Claim(s) 1-18,35,36 and 52-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Claims 30-34 are allowed.
2. The 112 claim rejections, first paragraph are withdrawn in view of the present amendment and response. The corrective amendments to the specification are entered.
3. The art rejections over JP 08-169076 are withdrawn because differences in the melting point of the first thermoplastic resin and the second thermoplastic resin do not necessarily render the first layer and the second layer rigid and compliant upon activation.
4. The art rejections over Nomura (US 4,128,638) are put back on because of the removal of the limitation "the first layer and second layer made from different foamable materials" from the claims.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 7, 16-18, 52 and 53 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Steward et al (US 4,211,590). Steward discloses a vehicle headliner comprising a laminate that includes a resilient foam core disposed between two thermoplastic film layers as shown in figure 3. A plurality of holes are completely through the laminate. The holes are equally spaced aligned as shown in figure 2. The holes are randomly arranged as shown in figure 1. The film is much thinner than the foam core to achieve the desire strength to avoid objectional sagging of the center portion of the headliner (column 3, lines 60-65). The film has a thickness much less than the thickness of the foam core. The foam core has a closed cell structure and a sufficient strength to eliminate sagging of the center portion of the liner. Therefore, it is the examiner's position that the foam core would be substantially more rigid than the film layer so as to achieve the desire strength to avoid objectional sagging of the center portion of the headliner. The headliner conforms to the contour of the roof panel of an automobile body. The film layer 12 reads on Applicant's carrier. The film layer 10 reads on Applicant's second layer of a foamble material. Steward does not specifically disclose the film layer being capable of absorbing shrinkage strains due to heat cure. However, the film layer is flexible enough to enable bending or deformation during installation (column 3, lines 20-25). This suggests the film layer is a soft material and it is not seen that the film layer could not have been capable of

absorbing shrinkage strains due to heat cure. Accordingly, Steward anticipates or strongly suggests the claimed subject matter.

8. Claims 1, 3-18, 35, 36, 52 and 53 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Isola (US 3,953,067). Isola discloses a vehicle headliner comprising a multilayered laminate that includes a rigid foam substrate 190, an intermediate insulating material 192 and a resilient foam like covering material 192 as shown in figure 7 (column 7, lines 15-20, column 10, lines 60-62, column 15, lines 1-5). The insulating material further rigidifies the headliner (column 15, lines 1-5). Likewise, the insulating material is relatively more rigid than the covering material 192. A plurality of holes are completely through the laminate as shown in figure 7. The headliner conforms to the contour of the metal roof of an automobile body. Isola discloses the headliner including a rib, side edges and end edges as recited by the claims (figure 1). Isola does not specifically disclose the covering material being capable of absorbing shrinkage strains due to heat cure. However, since the covering layer is capable of becoming a soft foam as the second foamable material of the present invention, therefore, it is not seen that the covering layer could not have been capable of absorbing shrinkage strains due to heat cure. Accordingly, Isola anticipates or strongly suggests the claimed subject matter.
9. Claims 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Isola (US 3,953,067). Isola discloses the insulating material made from

polyurethane or Styrofoam containing magnetic particles (column 15, lines 5-15). Isola does not specifically disclose the amounts of the synthetic resin, blowing agent and magnetic particles. However, such a variable would have been recognized by one skilled in the art to be regulated to obtain the insulating foam material having sufficient heat and sound absorbing capacity and functioning to further rigidify the headliner and sufficient to be magnetically attracted to the metal roof of the associated vehicle. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the synthetic resin, blowing agent and magnetic particles having the amounts in the ranges instantly claims motivated by the desire to obtain the insulating foam material having sufficient heat and sound absorbing capacity and functioning to further rigidify the headliner and sufficient to be magnetically attracted to the metal roof of the associated vehicle. This is in line with *In re Aller*, 105 USPQ 233, which holds that discovering the optimum or workable ranges involves only routine skill in the art.

10. Claims 1, 3-14, 18 and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Nomura et al (US 4,128,683). The phrase "capable upon activation of becoming a rigid reinforcement foam" indicates that the action of becoming a rigid reinforcement foam is a future action which may be done but is not required to be done. Similarly, the same token is applied to the words "capable upon activation of becoming a compliant foam". Accordingly, the first rigid foam and the second compliant foam are not required to be part of the

laminate. The presently claimed laminate structure does not exclude the auto ceiling panel of Nomura. Nomura teaches an auto ceiling panel comprising a vinyl chloride sheet 4, a first polyethylene foam 2, a metal lath 1, and a second polyethylene foam 3. The first polyethylene foam and the vinyl chloride sheet are provided with a plurality of small holes through two layers while the second polyethylene foam is provided with a plurality of through holes with a diameter larger than that of the small holes (see figure 1). Normura also teaches that at least one of the small holes overlapping the larger hole becomes through one (figure 1, column 2, lines 35-36). Likewise, the pattern of holes creating open passageways completely through the panel. The auto ceiling panel has a pair of longitudinal side edges interconnected by a pair of transverse end edges wherein at least one of the pair of side edges and end edges have a pattern of hills and valleys joint together to be non-straight and undulated (figures 2 and 5). The second foam layer is intimately bonded directly to the ceiling of the vehicle that corresponds to Applicant's substrate. Figure 2 of Nomura shows at least one rib formed by the first and second foam layers and polyvinyl chloride sheet forming a minor interruption of the continuous contour. Figure 2 of Nomura also shows end flanges extending in the same direction as each other and as the rib away from the continuous contour. Nomura discloses the second foam layer 3 having a density from 0.02 to 0.1 g/cc (column 2, lines 18-20), which is low enough to be considered as a compliant foam. Figure 2 shows the pattern of holes randomly arranged. The first foam layer is rigid and the second foam layer is compliant

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because due to differences in the hole sizes made within the first foam layer and the second foam layers. The holes made within the first foam layer have a diameter which is much smaller than those within the second foam layer.

Accordingly, Nomura anticipates the claimed subject matter.

11. Claims 15-17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al (US 4,128,683). Nomura does not specifically disclose the sound absorbing panel being used in combination with an automobile door. However, it is believed that once the prior art renders obvious the use of the sound absorbing panel as an auto ceiling panel, the use of the sound absorbing panel in combination with a particular component of the vehicle; i.e, vehicle door is not a patentable advance but involves only routine skill in the art to attenuate the interior noise in the vehicle. Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the sound absorbing absorption panel in combination with the vehicle door motivated by the desire to attenuate the interior noise in the vehicle.

Figure 1 shows that the distance between the adjacent holes is about the same across the length of the laminate. Nomura does not specifically teach the pattern of holes in the rows and columns as recited in the claims. It is believed that once the prior art renders obvious formation of the plurality of holes through the laminate, the orientation of such through holes is not a patentable advance but involves only routine skill in the art to ensure a good effect of sound



absorption of the panel. Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the auto ceiling panel having a pattern of the through holes instantly claimed motivated by the desire to ensure a good effect of sound absorption.

12. Claims 2 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nomura et al (US 4,128,683) as applied to claim 1 above, further in view of Daniel (US 4,234,907). Nomura does not teach the skin formed from either metal or fiberglass cloth. Therefore, it is necessary and thus obvious for the skilled artisan to look to the prior art for the use of such materials as the decorative skin of the vehicle ceiling panel. Daniel teaches the automotive ceiling panel having the decorative skin made from the light emitting fabrics which are backed with a metal (figure 3). Therefore, in the absence of unexpected results, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ light emitting fabrics as the decorative skin of Nomura motivated by the desire to effect the decorative illumination.

13. Claims 1-4, 7, 16-18, and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wycech (US 5,575,526) in view of Muramatsu (US 5,866,052). Wycech discloses a windshield pillar comprising a rigid foam layer sandwiched between an outer shell 14 and an inner tube 16 as shown in figures 2 and 2A. Wycech discloses the rigid foam layer made from a composition similar to the composition as recited by the claims. The outer shell and the inner tube can be

made from a metal. The pillar includes a pattern of holes completely through the pillar as shown in figure 2. Figure 11 of Wycech shows the pillar having a generally continuous contour and at least one rib formed by the pillar. Wycech does not specifically disclose the second layer of a foamable material secured to the rigid foam layer. Muramatsu, however, teaches a windshield pillar comprising a soft foam layer sandwiched between two rigid foam layers as shown in figure 7 (column 8, lines 60-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the structural foam layer as disclosed by Wycech to a composite foam material that includes a soft foam layers sandwiched between the lower and upper structural foam layers motivated by the desire to prevent application of the excessive foaming pressure to the inner surfaces of the pillar because the soft foamable layer serves as an absorbing means.

***Allowable Subject Matter***

14. Claims 30-34 are allowed. The reasons for allowance were stated in the 10/01/2004 Office Action.

***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV



**HA VO**  
**PRIMARY EXAMINER**